

In the Written Disclosure of the Specification:

Amend paragraph **[0002]** in the following respects:

[0002] Occasionally a descriptive term in this application may be shortened so as to recite only a part rather than the entirety thereof as a matter of convenience and to avoid needless redundancy. In instances in which that is done, applicant intends that the same meaning be afforded each manner of expression. Thus, the term *exercise bar's block impingement nodes* [(413)] (213) might be used in one instance but in another if meaning is otherwise clear from context, expression might be shortened to *impingement nodes* [(413)] (213) or merely *nodes* [(413)] (213). Any of those forms is intended to convey the same meaning.

Amend paragraph **[0005]** in the following respects:

[0005] Terms relating to physical orientation such as *top* or *bottom*, *upper* or *lower*, refer to the positioning of the assembly in the manner it would be observed during a commonly practiced mode of operation. This convention has been adopted as a matter of convenience in discussing orientation and as shown in the drawings. Thus, the cord stretching recess (71), when present, is described as being disposed longitudinally along the *underside* of the bar's elongated body (10); that it is a common practice when using an exercise bar assembly to anchor the elastic cord (20) *beneath* the standing operator's feet and then pull *upwards* upon the rod or elongated body (10); and that in second mode operation, the bar (800) may be raised *above* his or her head.. The use of the terms in this manner must, of course, be interpreted so as to be equally //understood regardless// understood regardless of what attitude the assembly

is positioned--such as, for example, when it is inverted in switching from one mode of operation to another. In such instances, it is appropriate to specifically qualify what is meant by such recitations as *on top of* or *beneath*.

Amend paragraphs [0014] and [0015] in the following respects:

[0014] With specific reference to cord (20) enwrapping, however, it was also observed that a solid handgrip (120), by reason of the obstruction presented to it (120) by the enwrapping pegs, couldn't be arbitrarily rotated once the connection block (121) had been emplaced and fitted into the end of the bar (800). Other than that shown, the only position it (120) could occupy without interference *[/with]* from any present is 180 degrees away. In that respect, therefore, the inclusion of integrally disposed cord (20) enwrapping pegs upon the body of the bar (800) might well be considered an impediment rather than a beneficial feature.

[0015] Prior art handgrips, either of the solid variety (120) or the strapped (130), are addressed herein, nonetheless, as feasible combining members. As widely recognized in the art, a stoppered (22) elastic cord end (21) was connected by means of impingement (200) to a solid handgrip's connection block (121) at a cord impingement site (128) within a cord tunnel (122). It is the base or stem of the solid handgrip (120) which comprises its connection block (121). The strapped handgrip's connection block (131) is the subject of other patents and essentially *[/amounts]* amounted to a solid site of conjunction for the exercise cord (20) and the straps of the handgrip (130). The solid handgrip's tunnel (122) comprised a first opening (125) of size accommodating the disposition of a stretchable exercise cord (20) therethrough and an oppositely disposed second opening (127). It was the connection block's neck (123) which became emplaced within the body of the exercise bar (800).

Amend paragraphs [0020] - [0024] in the following respects:

[0020] Finally, U.S. Patent No. 4,779,867 issued to *Hinds* featured an exercise bar (*800*) which could be anchored for whichever mode of exercise was engaged in—the anchoring being provided for either at the ends of the cord (*20*) or at its (*20*) mid-portion. The assembly was also presented to suggest two-piece configuration for the body of the bar (*800*), although specific details supporting snap-fit (*42*) or other means of interconnection previously witnessed in *Hinds* 4,316,610, *supra*, were now wanting. Admirably, the bar's (*800*) body also included a cord stretching recess (*71*) along its (*800*) length in which a hollow cord's (*20*) mid-portion would have been securely seated for first mode operation. At the body's ends, that assembly also comprised cord (*20*) enwrapping pegs then thought beneficial for second mode operation.

[0021] This last assembly fairly well captured the features desired for versatility of use. However, for employment in the second of the two modes of exercise considered, troublesome shortcomings remained concerning the actual anchoring of the cord ends (*21*) upon the bar's (*800*) body. Connection was accomplished by allowing the base of a pair of handgrips (*120*) to be emplaced within sockets shaped to snugly accommodate them (*120*) in the body ends. That, however, resulted in a rather bulky arrangement for which no second mode options were possible and the handgrip (*120*) rotational difficulties presented by cord (*20*) enwrapping pegs discussed *supra* had to be reckoned with. *[/It]]*
Other things being equal, it is likely an *[/operator, other things being equal,]]*
operator would *[/opt]]* have opted to employ the assembly only in first mode operation rather than *[/to]]* encounter those difficulties.

[0022] The *Hinds* provision for handgrip (*120*) connection *[/to engage]]* for engagement in the second mode of exercise, *supra*, may properly be considered to have been the harbinger of possibilities yet to come. For example, the specially formed strapped handgrip tunneled block (*131*) alluded to,

supra, has been a more recent significant innovation adaptable to emplacement in that exercise bar (800). Unfortunately, however, as with the solid handgrip (120), that device can be oriented in but one direction upon emplacement. While a novel exercise bar (800) might just as well continue to incorporate those already existing connection features, it would be highly useful to have with us a handgrip connection block (121, 131) for a connector which is not limited in orientation but which could be emplaced in any radial position within a bar (800) end socket.

[0023] At first, exercise cords (20) were often merely knotted at the cord's end (21) for reliable connection to a solid or strapped handgrip's connection block (121, 131, respectively), the knot's bulk preventing the end (21) from slipping out of the opening therein (121, 131) it (20) had been reeved through. Since then, the embedding of an impingement plug (22) within the end (21) of a hollow exercise cord (20)—a stoppered (22) cord (20), as it were—has come to comprise the most popular means of impingement (200) approach to keeping the cord (20) in place. The firm connection which was provided between the knotted or plugged (22) cord end (21) and a handgrip connection block (121, 131) or any other suitable connection site is referred to herein as means of *impingement* (200). The tunnel (132, 232) through which the cord (20) is passed within a handgrip connection block (121, 130) has generally been shaped to permit the wider stoppered (22) portion of the cord (20) to lodge within it (132, 232), becoming impinged in place by a firm tug upon the cord (20). The closer the match, the snugger the fit and better the impingement. The locus of connection within a [/solid/] handgrip's connection block (121, 221) is designated a [/solid/] handgrip's cord impingement site [(128,)] (128, 228) that within a strapped handgrip's connection block (131), a strapped handgrip's cord impingement site (138). The tunnel (122, 132) has sometimes been conically configured, although slight concavity of curvature tending to mate to a portion of the stoppered (22) cord (20) has generally been preferred.

[0024] One might well ask, at least where second mode exercise is conducted, why the ends of the body of the more recent prior art exercise bar (800) might not themselves have been modified to serve as connectors for a hollow cord (20) assembly at least in this exercise modality. Is it not thus true for such a connection that the hollow stretchable cord (20) with a plug-like impinger (22) stuffed within its end (21) would be stretched to make it (20) slip through the narrow slot in the end of the bar's (800) body in the same manner it was done at prior art to connect the base or block (121) of a solid handgrip (120) to it. Would not interchangeability of one hollow cord (20) for another of different stretchable resistance be facilitated?

Amend paragraph **[0026]** in the following respects:

[0026] It is, of course, appropriate to recognize the new developments in cord (20) impingement within handgrips (120) which have [/occurred//] emerged. These obviate the interchanging of cords (20) merely to work with a longer or shorter one (20). It may not be feasible to work with an impinger (200) either kept separately from the assembly--in which case it (200) would be vulnerable to misplacement or loss--or installed on the body of a retrofitted exercise bar (800), an alteration which would likely prove unattractive and cumbersome.

Amend paragraphs **[0029] - [0031]** in the following respects:

[0029] Merely switching an exercise cord (20) stoppered (22) at each end (21) with one (20) connected to a solid or strapped handgrip (120, 130, respectively) do a handgrip (120, 130) - cord (20) combination does not quite fulfill the objectives of convenient alternative usage, however, because the configurations of the handgrips' emplacement structures (121, 131) differ

considerably from—in particular, are larger than—that of a cord end (21) bearing an impinging plug (22). Mere substitution of the latter (21, 22) for the former structures (121, 131) would result in an unwanted very loose fit, possibly even allowing the stoppered cord (20, 22) to slip out of place altogether during use. But a novel structural modification could provide the accommodation of both (21, 22 and 121, 131).

[0030] What is needed is an assembly in which the familiar prior art exercise bar (800) is modified so that one might conveniently interchange one arrangement for another. It would be advantageous to bring a stretchable exercise cord (20) into use in an exercise bar (800) assembly otherwise dedicated only to that with a solid handgrip (120). It would also be advantageous to bring a strapped handgrip (130) into use in that assembly. The strapped handgrip connection block (131) is, for all practical purposes, identical with the base or connecting block (121) of the solid handgrip (120). It should be possible to somehow change the bar (800), for example, so that one might switch from independent handgrip (120, 130) and exercise cord (20) use to combined bar (800) body and cord (20) use; from one cord (20) connected to the bar's (800) body to another (20); from combination of bar (800) body and cord (20) to that of body and solid handgrip (120); from combination of bar (800) body and solid handgrip (120) to that of body and strapped handgrip (130); from combination of bar (800) body and either handgrip (120, 130) to independent cord (20) and handgrip (120, 130) use; and so on.

[0031] Experience demonstrates that better connection block [(120, 130)] (121, 131) emplacement results are attained by assuring socket depth sufficient to provide firm retention. Too shallow a wall confers some degree of instability upon the system, permitting a stressful rocking-like effect upon the connection. It has been observed that the vertical thickness of the bar's (800) body itself [(10)] does not consistently provide the sought-after retention security. There is concern, however, that thickening the body [(10)] would

make it [(10)] cumbersome and impair easy-to-grip configuration. It would be more appealing to provide the needed depth in fixtures dedicated to that objective proximate the body's [(10)] ends. Yet, if a suitable [/device] solution providing for alternative direct [/cord (20)-to-body (10)] cord (20)-to-bar (800) and indirect [/cord (20)-to-handgrip (120, 130)] handgrip (120, 130)-cord (20) combination-to-bar (800) were provided, care [/must] would have to be taken to avoid unwanted torque created when a stretchable elastic cord (20) engages a connector at a leverage creating projection therefrom.

Amend paragraphs **[0033] - [0036]** in the following respects:

[0033] In its most important aspect, the invention is an assembly which permits expedient connection of an exercise cord assembly (2) to an exercise bar assembly (1) without the incorporation of handgrip connection blocks (121, 131), although provision is still made to retain handgrips (120, 130) for optional use. The exercise bar's elongated body (10) is adapted to accommodate within it (10) the lodging of the impinged (22) end (21) of a stretchable exercise cord (20) by carving within it (10) either a tunnel (12) or an underlying cord impingement nest (18). The nest (18), having only one opening (19), may be thought of as the lower half or so of a tunnel (12), [[which]] which--of course--has two of them (15, 17). The cord's (20) entrance point into a nest (18) is, therefore, [[is]] said to comprise merely a nest opening (19); that for a tunnel (12), a first opening (15) thereof (12). Whether tunnel (12) or nest (18), the cord's (20) entrance opening (15, 19, respectively) must be large enough to encompass its (20) diameter but too small to allow its stoppered (22) end (21) to pull through. For additional reinforcement, the bar's body (10) comprises pipe bowl configuration at its ends.

[0034] The tunnel (12) may comprise within it (12) shared cavity emplacement wells (75), usually two, concentrically disposed (72) one atop the

other (72). The uppermost is designated a handgrip block emplacement well (76), the lower, a cord impingement well (77). This arrangement allows its (12) contents--connection block (121, 131) or impinged (22) cord end (21)--to be more snugly fitted and is preferably characterized by a constriction about midway along the tunnel's (12) descent. In some models, a block retaining ledge (16) is disposed there, providing a seating place for the handgrip's connection block (121, 131). [/In some, to/] To provide a more secure [/connection,]
connection in those or other models, impingement means [(41)] comprising either nodes (213) [/of] or flattened faces (313) are formed along the walls of the block emplacement well (76) and the connection block's neck (123, 133) configured with an impingement sector (124, 134).

[0035] Because it has become almost asinine to undertake the many-year-old practice of repeatedly reeving a cord (20) through a small opening and then either knotting it (20) or inserting an impingement plug (22) into its end (21), special attention has been paid to [/getting] improving ways to get the impinged (22) cord end (21) into place. The handgrip connection bar's [(121, 131)] slotted pathway (126, 136, *respectively*), more recently provided by applicant in a previous patent, is carried over herein so that a portion of the cord's (20) mid-length may be [/either] stretched and slid along through [/an emplacement] the slot (14) in the bar's body (10) leading to [/a tunnel] the cord tunnel (12). [/or] Alternatively, it may be manipulated into a cord emplacement channel (11) leading to an impingement nest (18), depending upon which (12 or 18) is present.

[0036] The handgrip connection block's neck (123, 133)--the portion of the handgrip (120, 130) which is emplaced within the tunnel's second opening (17)--may take any one of several conceivable forms in cross-section. Rotational positioning of the connection blocks (121, 131)--say, to dispose a handgrip emplacement slot (126, 136) and the bar body's emplacement slot (14) or channel (11) in deliberate misalignment--is made feasible by configuring the

block's necks (123, 133) with *axial symmetry*. Obstructions otherwise encountered during rotational positioning upon a prior art exercise bar (800), such as the older-fashioned enwrapment pegs, are eliminated by streamlining the [[bar]] bar's body (10) to confer upon it (10) what is designated herein to be *continuously contoured projection*.

Amend paragraphs **[0040] - [0042]** in the following respects:

[0040] **FIG 1** represents an embodiment of the assembly in which the exercise bar's elongated body (10) is configured at each end with what is designated herein to be a pipe bowl terminus (510), *ante*, each comprising a tunnel (12) within which (12) a respective end (21) of a hollow stretchable exercise cord (20) with an impingement plug (22) inserted into it (21) is secured. In each (12), a block fitting sector (13) present for optional handgrip (120, 130) use comprises flattened face (313) configuration. The body (10) also features a bar separation assembly (4) at its mid-portion.

[0041] **FIG 2** is a perspective cut-away depiction of a special embodiment in cord (20)-to-bar body (10) connection in which the tunnel (12) of the pipe bowl terminus (510) is deep enough to permit two emplacements simultaneously. The tunnel's (12) structure is simple, comprising neither shared cavity emplacement wells (75) nor a block retaining ledge (16) as a part thereof (12) for connection. Its (12) arcuate wall alone accommodates both an impinged cord (22) and the connection block [(121)] (121, 131) of a handgrip [(120)] (120, 130)-a solid stirrup-like one (120) in this case, although that (131) of a strapped handgrip (130) would do just as well, *ante* case. The connection block (121), which would ordinarily be employed only if the cord (20) were connected to it (121) instead of to the exercise bar's body (10), is included in the drawing only to emphasize the point.

[0042] **FIG 3** illustrates a cord emplacement slot (14) disposed along

the sides of the body (10), illustrating cord (20) access to the tunnel (12) of the pipe bowl terminus (510) other than from the body's (10) end. [(a)] The cord stretching recess [(71), optionally present,] [(71)] option is also featured in the embodiment.

Amend paragraph **[0046]** in the following respects:

[0046] FIGs 9 and 10 comprise cross-sectional views cut through the tunnel (12) of two distinct embodiments of an assembly in which the shared cavity emplacement wells (75) are concentrically disposed (72). In both drawings, the block emplacement well (76) includes a block retaining ledge (16) to serve as a stop for a handgrip connection block (121, 131). The latter of the drawings includes for block (121, 131) emplacement a conical opening (111) and for impingement means ~~(200)~~ the stoppered end (21, 22) of (200), an exercise cord (20) within the end (21) of which (20) an impingement plug (22) has been inserted. In each, a block fitting sector (13) is present comprising in the former, a flattened face (313) and in the latter, impingement nodes (213). The cord (20) is positioned so that it (20) may be drawn into the cord impingement well (77)--the lower one (75)--for impingement.

Amend paragraph **[0047]** in the following respects:

[0047] FIG 11 illustrates an embodiment of the assembly in which strapped handgrips (130) in cut-away portrayal are disposed for emplacement within pipe bowl termini (510). The connection blocks (131) and shared cavity wells (75) are isolated from one another (131, 75) for viewing purposes. The bar separation assembly (4) is also present. This drawing illustrates the alternative size accommodating configuration character of the block emplacement well's (76) in that here, it is not the stoppered [(21, 22)] (22)

exercise cord (20) which is directly joined to the exercise bar's body (10) as in **FIGs 1, 2, 4 - 7** and **10** but instead, the strapped handgrip's connection block (131) making that juncture with the cord (20) impinged within it (131). The block fitting sector (13) comprises flattened face (313) configuration. A cord stretching recess (71) is also included for possible first mode use.

Amend paragraph **[0065]** in the following respects:

[0065] Having come thus far, one may now readily conceive of an assembly comprising only a stretchable cord (20) whose ends are connected by means of impingement (200) directly to a bar's elongated body (10). Without more, however, this arrangement does not quite fulfill the needs for true convenience in [[use, however, because]] use because in the absence of an emplacement slot (14), to interchange one cord (20) for another (20) of different stretching resistance, one would have to contend with undoing the existing impingement means (200), reeling through the first opening (15) and re-impinging the substituted cord (20).

Amend by reorientation–separation--the structure of paragraphs **[0070]** and **[0071]** in the following respects:

[0070] To meet the needs outlined *supra* for acceptable connection block (121, 131) stability, each of the bar body's (10) ends is preferably provided additional reinforcement and special configuration in the form of an integrally attached *pipe bowl terminus* (510)--collectively, *pipe bowl termini* (510)--comprising tunneled (12) configuration. A quasi-cylindrical object, somewhat barrel-like in configuration, it (510) is also substantially conical so that the diameter of one end is larger than that of the other, evincing a conically domed nature a little like that of an igloo or a chocolate covered cherry. When observed

in its usual orientation with the smaller first opening (15) downward and the larger second opening (17) upward, there is suggested for the imaginative the bowl of a smoker's pipe, fortuitously providing the coined namesake herein. So favorable is this configuration (510) to functionality that, among all of the possible variations, it (510) is portrayed in nearly every //drawing. **[0071]**

[0071] Conceivably, it (510) may be transversely positioned at any height—that is, it (510) may have its (510) mid-portion disposed in alignment with the bar body's (10) longitudinal axis so that the first and second openings (15, 17) are oppositely displaced down and up, therefrom, respectively; it may have either opening (15, 17) disposed more or less flush with the lower and upper surfaces of the bar's body (10), respectively; or it may be disposed at any point in between those extremes.

Amend paragraph **[0074]** in the following respects:

[0074] In the preferred model, a step-like configuration shown in **FIGs 1, 3, 6, 7, 9 - 12, 17 and 18** is disposed at the lower portion of the //lock block emplacement well (76)—that is, the larger shared cavity well //(75) providing //(75)-providing a stop for the handgrip connection //blocks block (121, 131) of a solid or strapped handgrip (120, 130, respectively). This step-like structure is herein designated herein a block retaining ledge (16). It is not a matter of great importance which portion of the block (121, 131) becomes retained by the ledge (16)—that is, whether it is the portion thereof (121, 131) inserted farthest into the opening (17) or some intermediate point along its neck (123, 133). So far as a similarly functioning stop for the impinged cord end (21) is concerned, that may be considered to have been inherently provided by the configuration of the first opening itself (15), which may be somewhat rounded along the contacting edge to prevent abrasion.

Amend paragraph [0079] in the following respects:

[0079] It is not essential upon assembly that the bar's cord emplacement slot (14) and the handgrip block's cord emplacement slot (126, 136), if both (14 and 126, 136) are included in structure, be disposed in alignment with one another (14 and 126, 136). It should be apparent that deliberately setting them (14 and 126, 136) in misalignment would enhance the assembly's cord (20) connecting security. Axial symmetry of the connection block's neck (123, 133) then provides a convenience in which the cord (20) is brought into place *[/[more or less simultaneously]]* and the connection block (121, 131) more or less simultaneously then axially rotated within the opening (17) to a non-aligned position.

Amend paragraph [0085] in the following respects:

[0085] The bar separation assembly (4) disclosed in **FIGs 29 and 30** represents a preferred feature also indicated in **FIGs 1, 11 and 17 and with lesser sophistication in FIGs 8, 14 and 20**. This assembly (4) comprises a bar separation seam (40), a button opening (43) and *snap-fit means of connection* (42), *supra*. Herein, such means (42) preferably comprises a release button (41) and either a grasshopper leg spring (442) connected both to it (41) and a separation spring seat (44); or the more preferred resilient integral finger (452). Upon depressing the button (41), it (41) is cleared from an otherwise obstructing site, permitting opposing portions of the exercise bar's elongated body (10) to separate from one another (10). Upon rejoining the portions (10) and releasing the button (41) and causing it (41) to co-engage *[/a]]* the button opening (43), the snap-fit connection means (42) returns the button (41) to its obstructing disposition thereby preventing unintended separation of the portions (10).

Amend paragraph **[0087]** in the following respects:

[0087] The grasshopper leg spring (442)-so named because of its strength and resilience when bent and seated as shown there—is connected to the release button (41) in any known manner; preferably by impingement within a hollow disposed within the button (41). The mid-portion of the spring *[(42)]* (442) may be bent to accomplish this fitted connection. The ends of the spring *[(42)]* (442) are then preferably bent as shown and fitted along portions within the body (10) to provide a firm tensioning seat. When the button (41) is depressed, it (41) clears the opening (43) and the two body (10) pieces may be pulled apart at the separation seam (40). When the pieces are slid back together, by reason of the tension provided by the grasshopper leg spring (442), the button (41) pops through the opening (43) the instant the two (41, 43) become aligned.

In the Claims:

Amend in the manner set forth on the pages entitled "Claims"